

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

10/03

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,125	04/30/2001	David Landis Fisher JR.		1919
7590	09/02/2004		EXAMINER	
DAVID L. FISHER CARDSMART TECHNOLOGIES, INC. 1140 MOLOKAI DRIVE TEGA CAY, SC 29708			COLIN, CARL G	
			ART UNIT	PAPER NUMBER
			2136	

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/845,125	FISHER, DAVID LANDIS
Examiner	Art Unit	
Carl Colin	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 April 2001 .

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-16 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 30 April 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. ____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) Interview Summary (PTO-413) Paper No(s). _____
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

1. Pursuant to USC 131, claims 1-16 are presented for examination.

Specification

2. The specification is objected to because of some formalities, which will be discussed below. Applicant is provided a summary of the content of Specification to help correcting errors found in this application.

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), “Sequence Listings” (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a “Microfiche Appendix”: See MPEP § 608.05(a). “Microfiche Appendices” were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

- (1) **Field of the Invention:** A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) **Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98:** A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) **Brief Summary of the Invention:** See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) **Brief Description of the Several Views of the Drawing(s):** See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) **Detailed Description of the Invention:** See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) **Claim or Claims:** See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing: See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

2.1 The abstract of the disclosure is objected to because it is too long, it contains more than one paragraph, and the language used (see requirement below).. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because in figure 1, reference characters "310" and "311-31x" have both been used to designate new applications 310. Appropriate correction is required.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because the following reference number is not consistent with the drawings: on page 8, line 11 reference 320 refers to both "key 320" and "unlock key 320". Applicant is required to carefully review the application to correct such errors.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. **Claim 4** is objected to because of the following informalities: on line 18, the word "the" should be --a-- . Appropriate correction is required.

4.1 **Claim 6** is objected to because of the following informalities: on line 25, the word "the" should be --a-- . Similar problems are also found in claims 8, 10, 12, and 14. Appropriate correction is required.

4.2 **Claims 1, 10, and 14**, are objected to for lack of indentation of limitation. See MPEP § 608.01(m). Appropriate correction is required

4.3 **Claim 4** is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

The claims are objected to because the lines are crowded too closely together, making reading and entry of amendments difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1, 10, and 14 and the intervening claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.1 **Claims 1, 10, and 14** and the intervening claims are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 10, and 14 and the intervening claims are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The method and system cited in these claims are not embodied in a computer hardware or software. Also, claims 10 and 14 are referred to both method and system.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7.1 **Claims 1 and 7** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,145,080 to **Hanel**.

As per claims 1 and 7, Hanel discloses a method for the secure and controlled loading of applications onto a conventional file system smart card without the benefit of card based cryptographic services or a virtual machine such as Java and wherein the said application loading can take place even after the card has been placed into circulation, for example (see column 2, line 11 through column 3, line 31).

7.3 **Claims 10-13** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,575,372 to **Everett et al.**

As per claim 10, Hanel discloses a method and system for the Card Issuer to selectively empower third parties to be able to load applications to the smart card, for example (see column 8, lines 50-55).

As per claim 11, Hanel discloses the limitation of further consisting of a secure process for individually authorizing and controlling application loading, for example (see column 8, line 50 through column 9, line 40).

As per claim 12, Hanel discloses the limitation of wherein the authorization can be granted after the card has been placed in circulation, for example (see column 8, line 50 through column 9, line 40).

As per claim 13, Hanel discloses the limitation of wherein the Card Issuer maintains a reversionary ownership interest in the card such that applications can be inactivated or removed, for example (see column 8, lines 1-48 column 14, lines 40-50).

7.4 **Claims 14-15** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,173,401 to **Deindl et al.**

As per claim 14, Deindl et al. discloses a method and system to logically separate the smart card memory such that partitioned applications cannot corrupt or otherwise interfere with each other, for example (see column 1, lines 30-50 and column 4, lines 1-17).

As per claim 15, Deindl et al. discloses the limitation of wherein partitioned card memory is only available to authorized application providers and cannot be accessed through unlicensed means, for example (see column 1, lines 30-50 and column 4, lines 1-17).

As per claim 16, Deindl et al. discloses the limitation of wherein application providers can create security schemes local to their authorized application directory thereby controlling access to data within that application directory, for example (see column 1, lines 30-50 and column 4, lines 1-17 and column 5, lines 24-45).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to

which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8.1 **Claims 2-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,145,080 to **Hanel** in view of US Patent 6,067,621 to **Yu et al.**.

8.2 **As per claims 2-5, Hanel** substantially discloses the claimed method of claim 1 further consisting of a plurality of key files which have been initially written to the smart card by the card issuer and which values may, in turn, be selectively disclosed to third parties in order to grant access for application loading, for example (see column 2, line 11 through column 3, line 31). **Hanel** further discloses storing security code and key into file (see for example column 3, lines 34-50). **Hanel** does not explicitly disclose single use key files wherein key values are rendered unusable after first use thereby restricting these as one time only keys and "card unlock key" value is randomly generated after each use and is therefore different for each card and each session. The use of one-time password and one-time generating key is very well known in the art as disclosed for example in "Handbook of Applied Cryptography" by Menezes. **Yu et al.** in an analogous art teaches the concept of one-time password in authenticating a user using an IC card and the random generation of key after each use in order to raise the security level by using a one-time password in which a different password is used each time; and further discloses storing a card access key to allow access to the card, for example (see column 3, line 10 through column 4, line 6; and abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Hanel** to store a master key

to unlock the card provide a one-time password to enhance the security level by using a one-time password in which a different password is used each time as taught by **Yu et al.** This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Yu et al.** so as to raise the security level.

9. **Claims 6, 8, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,145,080 to **Hanel** in view of US Patent 6,575,372 to **Everett et al.**

9.1 **As per claims 6, 8, and 9, Hanel** substantially discloses the claimed method of claim 1. **Hanel** does not explicitly disclose the unloading of applications and allowing specific applications to be deactivated. **Everett et al.** in an analogous art teaches further consisting of a second "card unlock key" known only to the card issuer which could override any other card operations thereby allowing specific applications to be deactivated wherein the said application loading can take place even after the card has been placed into circulation in order to prevent loading proprietary applications onto unauthorized cards issued by others, for example (see column 6, line 16-24 and column 3, line 40 through column 4, line 25) and application unloading and dynamic application loading thereby affording greater flexibility than attempting to fit applications into a predefined card template in order to extend additional functionality without having to issue new cards, for example (see column 13, lines 45-58 and column 3, lines 52-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Hanel** to provide a second "card unlock key" known only to the card issuer which could override any other card operations thereby allowing

specific applications to be deactivated wherein the said application loading can take place even after the card has been placed into circulation in order to prevent loading proprietary applications onto unauthorized cards issued by others; and application unloading and dynamic application loading in order to extend additional functionality without having to issue new cards as taught by **Everett et al.** This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Everett et al.** so as to prevent loading proprietary applications onto unauthorized cards issued by others and in order to extend additional functionality without having to issue new cards.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as the art discloses the use of memory allocations for loading specific applications in smart card.

US Patents:	6,594,746	Rabeler
	6,296,191	Hamann et al.

9.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 703-305-0355. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2136

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cc

Carl Colin

Patent Examiner

August 27, 2004

Ayaz Sheikh
AYAZ SHEIKH
SUPPLY PATENT EXAMINER
TECHNOLOGY CENTER 2100